Radiological/Nuclear Countermeasures Test and Evaluation Complex

National Security

The complex will test and evaluate sensors that will be deployed to U.S. border crossings, such as this one.

Introduction

The Radiological/Nuclear Countermeasures Test and Evaluation Complex (Rad/NucCTEC) is a multi-use test and evaluation platform that will serve the U.S. homeland security mission. Conceptual design of the complex was completed in July 2004. The facility is expected to be operational in October 2006.

Background

The Department of Homeland Security's Domestic Nuclear Detection office (DNDO) with assistance from the U.S. Department of Energy National Nuclear Security Administration has established the Rad/NucCTEC at the Nevada Test Site to support the DNDO mission to develop, acquire and support the deployment of a domestic nuclear detection s ystem to detect and report any attempt to import or transport a nuclear explosive device, fissile material, or radiological material intended for illicit use. The complex will be comprised of several operating areas, with the capacity to conduct high fidelity test and evaluation on detection systems.

Capabilities

The testing and evaluation complex is designed on a campus model, and is comprised of new primary testing components, including:

- A vehicle choke point where detection systems for land-border crossings, toll plazas, entrances to tunnels and bridges can be evaluated
- An "active interrogation" facility enabling the evaluation of the latest detection technologies to intrusively interrogate trucks and/or transports, enhancing the sensitivity of nuclear materials detection and overcoming the effects of materials that can shield the presence of nuclear materials
- An automated test track that provides highly repeatable measurements of sensor system responses; permitting the evaluation of systems against American National Standards Institute standards
- A large instrumented outdoor testing area to support testing of systems designed to screen transports and mobile detection systems
- A test support facility with control rooms and secured data processing areas

Customers

The complex supports a wide spectrum of users that include, but is not limited to:

- Department of Homeland Security Domestic Nuclear Detection Office
- The Department of Homeland Security Science and Technology Directorate (DHS S&T)
- Department of Energy National Laboratories that support the Department of Homeland Security mission and the development of detection systems for the international portion of the global nuclear detection architecture
- Private companies engaged in radiation detector development and production for the Department of Homeland Security
- Universities that support the Department of Homeland Security mission
- Operational agencies and organizations within the Department of Homeland Security, such as Customs and Border Protection, the United States Coast Guard and the Transportation Security Administration
- The Department of Energy National Laboratories that support International partners in the global nuclear detection architecture

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